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P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

466 7590

YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314 04/08/2010

EXAMINER

KAMEN, NOAH P

ART UNIT PAPER NUMBER

ART UNIT 3741 DATE MAILED: 04/08/2010

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 10/596,032
 05/25/2006
 Graydon Aubrey Shepherd
 4519-1002
 1878

 TITLE OF INVENTION: RECIPROCATING SLEEVE ENGINE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$0	\$755	\$755	07/08/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE: shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This is appropriate. All further c indicated unless corrected maintenance fee notificati	form should be used for espondence including below or directed oth ons.	or transmitting the ISS of the Patent, advance nerwise in Block 1, by	SUE FEE and PUBLICATI orders and notification of r (a) specifying a new corres				
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
YOUNG & THO 209 Madison Stre Suite 500	et	/2010	Lhe	Cert	tificate of Mailing or	Transm	
Alexandria, VA 2	2314						(Depositor's name)
							(Signature)
							(Date)
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EXAMI	NER	ART UNIT	CLASS-SUBCLASS				
KAMEN, N	NOAH P	374I	I23-05000R				
	ation (or "Fee Address" or more recent) attach TO RESIDENCE DATA ss an assignee is identi in 37 CFR 3.11. Comp	" Indication form ed. Use of a Customer A TO BE PRINTED ON	(1) the names of up to or agents OR, alternatic (2) the name of a single registered attorney or a 2 registered patent atto listed, no name will be THE PATENT (print or type data will appear on the pOT a substitute for filing an (B) RESIDENCE: (CTTY	vely, e firm (having as a sgent) and the name meys or agents. If i printed. ec) atent. If an assigne assignment.	member a 2es of up to a 3ee is identified below,		ument has been filed for
Please check the appropris	te assignee category or	categories (will not be	printed on the patent):	Individual Co	rporation or other priv	ate grou	pentity Government
4a. The following fee(s) as  Issue Fee Publication Fee (No	small entity discount p	permitted)	4b. Payment of Fee(s): (Plea  A check is enclosed.  Payment by credit car  The Director is hereby overpayment, to Depo	d. Form PTO-2038 authorized to chan	is attached.	any defi	
5. Change in Entity State  a. Applicant claims	SMALL ENTITY statu	is. See 37 CFR 1.27.	b. Applicant is no lon				
interest as shown by the re	cords of the United Sta	tes Patent and Tradema	ted from anyone other than t rk Office.	ne applicant, a regi	stered attorney or agen	t; or the	assignee of outer party in
Authorized Signature _				Date			
Typed or printed name				Registration N			
This collection of informa an application. Confidenti submitting the completed this form and/or suggestio Box 1450, Alexandria, Vi Alexandria, Virginia 2231	tion is required by 37 C ality is governed by 35 application form to the as for reducing this bur rginia 22313-1450. DC 3-1450.	FR 1.311. The information of U.S.C. 122 and 37 CFI USPTO. Time will variden, should be sent to 0 NOT SEND FEES OF	tion is required to obtain or r R 1.14. This collection is est ry depending upon the indiv the Chief Information Office R COMPLETED FORMS TO	etain a benefit by the imated to take 12 m idual case. Any co r, U.S. Patent and D'THIS ADDRESS	ne public which is to fi ninutes to complete, ir mments on the amoun Trademark Office, U.S. SEND TO: Commiss	le (and becluding t of time b. Depart ioner fo	by the USPTO to process) gathering, preparing, and you require to complete ment of Commerce, P.O. r Patents, P.O. Box 1450,

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YOUNG & THO	MPSON	KAMEN, NOAH P			
209 Madison Street			ART UNIT	PAPER NUMBER	
Suite 500 Alexandria, VA 22314			3741 DATE MAILED: 04/08/2010		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 469 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 469 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s) SHEPHERD, GRAYDON AUBREY				
10/596,032					
Examiner	Art Unit				
Noah Kamen	3741				

	Noah Ka	amen	3741		
The MAILING DATE of this communication appeal claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIO fite Office or upon petition by the applicant. See 37 CFR 1.313	(OR REM or other a GHTS. T	AINS) CLOSED in this app appropriate communication his application is subject to	lication. If not include will be mailed in due	ed course. THIS	
<ol> <li>The allowed claim(s) is/are <u>1-8 and 10-13</u>.</li> </ol>					
3. ☑ Acknowledgment is made of a claim for foreign priority ur a) ☑ All b) ☐ Some* c) ☐ None of the:  1. ☑ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN	been rec been rec cuments h	seived.  eived in Application No  ave been received in this remains the service of the serv	national stage applica		
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4. A SUBSTITUTE OATH OR DECLARATION must be subm			S AMENDMENT or N	OTICE OF	
INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.  5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  1) hereto or 20 to Paper No./Mail Date  (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.27(d).  6. DEPOSIT OF and/or INFORMALTION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.					
Attachment(s)  1.  Notice of References Cited (PTO-892)  2.  Notice of Draftperson's Patent Drawing Review (PTO-948)  3.  Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 2/19/10  4.  Examiner's Comment Regarding Requirement for Deposit of Biological Material  (Noah Kamen/	ı	5. Notice of Informal P. 6. Interview Summary. Paper No./Mail Dat 7. Examiner's Amendn 8. Examiner's Stateme 9. Other	(PTO-413), e nent/Comment nt of Reasons for Allo		
/Noah Kamen/ Primary Examiner Art Unit: 3741		Note, PTO-892 is equiv 2/19/10	alent to the submitt	ea כעו	